

IN THE CLAIMS:

1. (Currently Amended) A signal processing device for multiplexing first and second bit streams, each of said first and second bit streams being formatted in accordance with a different standard, comprising:

a dividing means for dividing said second bit stream into predetermined access units;

an adding means for adding a start code in a format corresponding to the standard of said first bit stream to each of said access units obtained by dividing said second bit stream; and

a multiplexing means for defining a user operable region in access unit of said first bit stream and multiplexes and records at least part of said second bit stream on said user operable region.

2. (Original) The signal processing device according to claim 1, wherein said start code includes time information and said multiplex means multiplexes and records said first and second bit streams having same time information.

3. (Original) The signal processing device according to claim 2, wherein said time information is the display time when the bit streams are displayed or the decoding time when the bit streams are decoded.

4. (Original) The signal processing device according to claim 1, wherein said dividing means divides said second bit stream into units of frames or those of a plurality of frames.

5. (Currently Amended) A signal processing method for multiplexing first and second bit streams, each of said first and second bit streams being formatted in accordance with a different standard, comprising:

a dividing step for dividing said second bit stream into predetermined access units;

an adding step for adding a start code in a format corresponding to the standard of said first bit stream to each of said access units obtained by dividing said second bit stream; and

a multiplexing step for defining a user operable region in access unit of said first bit stream and multiplexing and recording at least part of said second bit stream on said user operable region.

6. (Original) The signal processing method according to claim 5, wherein said start code includes time information and said multiplex step multiplexes and records said first and second bit streams having same time information.

7. (Original) The signal processing method according to claim 6, wherein said time information is the display time when the bit streams are displayed or the decoding time when the bit streams are decoded.

8. (Original) The signal processing method according to claim 5, wherein said dividing step divides said second bit stream into units of frames or those of a plurality of frames.

9. (Currently Amended) A recording medium storing a program for multiplex first and second bit streams, each of said first and second bit streams being formatted in accordance with a different standard, said program comprising:

a dividing step for dividing said second bit stream into access predetermined units;

an adding step for adding a start code in a format corresponding to the standard of said first bit stream to each of said access units obtained by dividing said second bit stream; and

a multiplexing step for defining a user operable region in access unit of said first bit stream and multiplexing and recording at least part of said second bit stream on said user operable region.

10. (Original) The recording medium according to claim 9, wherein said dividing step divides said second bit stream into units of frames or those of a plurality of frames.

11. (Currently Amended) A decoding device adapted to decode a multiplexed bit stream conforming to a first standard format obtained by defining a user operable region in access unit of a first bit stream and multiplexing and recording at least part of a second bit stream conforming to a second standard format different from said first standard format, said second bit stream also conforming to a syntax of said first standard format, on said user operable region, said decoding device comprising:

a means for detecting the user operable region in said multiplexed bit stream and extracting the data contained in said user operable region;

a converting means for conducting a predetermined converting operation on said data contained in said user operable region and restoring the second bit stream; and

a decoding means for decoding said first bit stream contained in said multiplex bit stream except said user operable region and said second bit stream.

12. (Currently Amended) A decoding method adapted to decode a multiplexed bit stream conforming to a first standard format obtained by defining a user operable region in access unit of a first bit stream and multiplexing and recording at least part of a second bit stream conforming to a second standard format different from said first standard format, said second bit stream also conforming to a syntax of said first standard format, on said user operable region, said decoding method comprising:

a step for detecting the user operable region in said multiplexed bit stream and extracting the data contained in said user operable region;

a step for conducting a predetermined converting operation on said data contained in said user operable region and restoring the second bit stream; and

a step for decoding said first bit stream contained in said multiplex bit stream except said user operable region and said second bit stream.

13. (Currently Amended) A recording medium storing a program for decoding a multiplexed bit stream conforming to a first standard format obtained by defining a user operable region in access unit of a first bit stream and multiplexing and recording at least part of a second bit stream conforming to a second standard format different from said first standard format, said second bit stream also conforming to a syntax of said first standard format, on said user operable region, said program comprising:

a step for detecting the user operable region in said multiplexed bit stream and extracting the data contained in said user operable region;

a step for conducting a predetermined converting operation on said data contained in said user operable region and restoring the second bit stream; and

a step for decoding said first bit stream contained in said multiplex bit stream except said user operable region and said second bit stream.

14. (Previously Presented) The signal processing apparatus of claim 1, wherein said units of said second bit stream conform to a syntax of said standard of said first bit stream.

15. (Previously Presented) The signal processing apparatus of claim 14, wherein said units of said second bit stream cannot be processed by a processor for processing said first bit stream.

16. (Previously Presented) The signal processing apparatus of claim 15, wherein said standard of said first bit stream is MPEG 2.

17. (Previously Presented) The signal processing apparatus of claim 16, wherein said units of said second bit stream are formatted to contain an integer number of bits that is a multiple of eight.

18. (Previously Presented) The signal processing apparatus of claim 16, wherein said units of said second bit stream are formatted to contain 23 or less consecutive bits having a value of zero.

19. (Previously Presented) The signal processing method of claim 5, wherein said units of said second bit stream conform to a syntax of said standard of said first bit stream.

20. (Previously Presented) The signal processing method of claim 19, wherein said units of said second bit stream cannot be processed by a processor for processing said first bit stream.

21. (Previously Presented) The signal processing method of claim 20, wherein said standard of said first bit stream is MPEG 2.

22. (Previously Presented) The signal processing method of claim 21, wherein said units of said second bit stream are formatted to contain an integer number of bits that is a multiple of eight.

23. (Previously Presented) The signal processing method of claim 21, wherein said units of said second bit stream are formatted to contain 23 or less consecutive bits having a value of zero.

24. (Previously Presented) The recording medium of claim 9, wherein said units of said second bit stream conform to a syntax of said standard of said first bit stream.

25. (Previously Presented) The recording medium of claim 24, wherein said units of said second bit stream cannot be processed by a processor for processing said first bit stream.

26. (Previously Presented) The recording medium of claim 25, wherein said standard of said first bit stream is MPEG 2.

27. (Previously Presented) The recording medium of claim 26, wherein said units of said second bit stream are formatted to contain an integer number of bits that is a multiple of eight.

28. (Previously Presented) The recording medium of claim 26, wherein said units of said second bit stream are formatted to contain 23 or less consecutive bits having a value of zero.